

U.S.S.N. 10/063,498

2

199-1941 (FGT 1503 PA)

In the claims:

1. (Currently Amended) A method of adaptively controlling the speed of an automotive vehicle having a controller comprising:

detecting an object and generating an object profile;

generating a navigation signal via a navigation system;

~~detecting~~ predicting a non-planned future path of the automotive vehicle in response to said navigation signal;

generating a predicted future path profile via the controller in response to said non-planned future path and said object profile; and

inhibiting a resume speed of the automotive vehicle by preventing acceleration of the automotive vehicle in response to said predicted future path profile and a command originated and generated by the controller.

2. (Original) A method as in claim 1 further comprising continuously updating said predicted future path profile.

3. (Original) A method as in claim 2 wherein updating said predicted future path profile includes updating parameters selected from the following group comprising: object profile, yaw rate, street category, and upcoming future road paths.

4. (Previously Presented) A method as in claim 1 further comprising:

determining that said object is a stopped object;

adjusting automotive vehicle speed in relation to said stopped object; and

U.S.S.N. 10/063,498

3

199-1941 (FGT 1503 PA)

maintaining a safe operating distance between the automotive vehicle and said stopped object.

5. (Original) A method as in claim 1 further comprising assuming a future road condition selected from the following group comprising: road curvature, speed category, number of lanes, and road inclination is the same as a present road condition.

6. (Currently Amended) A method as in claim 1 wherein ~~detecting~~ predicting the non-planned future path of the automotive vehicle comprises:

sensing yaw rate of the automotive vehicle and generating a yaw rate signal;

relating said yaw rate to road curvature; and

inhibiting resume speed of the automotive vehicle in response to said yaw rate signal.

7. (Currently Amended) A method as in claim 1 wherein ~~detecting~~ predicting the non-planned future path of the automotive vehicle comprises using a navigation system to generate a navigation signal including information selected from the following group comprising: automotive vehicle position, speed category, future path of the automotive vehicle, landmark location, road curvature, overhead object location, bridge location, construction zone, number of lanes, road type, and road inclination.

8. (Original) A method as in claim 1 wherein generating an object profile comprises storing object parameters selected from the following list

U.S.S.N. 10/063,498

4

199-1941 (FGT 1503 PA)

comprising: relative distance from the automotive vehicle, object location relative to a road, and velocity of said object relative to the automotive vehicle velocity.

9. (Previously Presented) A method as in claim 1 wherein generating a predicted future path profile further comprises determining object location with respect to the non-planned future path.

10. (Original) A method as in claim 1 wherein inhibiting the resume speed of the automotive vehicle further comprises inhibiting resume speed of the automotive vehicle while a present parameter selected from the following group comprising: road curvature, speed category, number of lanes, and road inclination remains constant.

11. (Currently Amended) A method of adaptively controlling the speed of an automotive vehicle having a controller comprising:

detecting an object and generating an object profile;

~~detecting~~ predicting a non-planned future path of the automotive vehicle and generating a predicted future path profile via the controller;

assuming a future road condition to be the same as a present road condition;

sensing yaw rate of the automotive vehicle;

generating a yaw rate signal; and

inhibiting a resume speed of the automotive vehicle by preventing acceleration of the automotive vehicle in response to said object profile, said assumption, said predicted future path profile, said yaw rate signal, and a command originated and generated by the controller.

U.S.S.N. 10/063,498

5

199-1941 (FGT 1503 PA)

Claim 12 canceled.

13. (Currently Amended) A method as in claim 11 wherein ~~detecting~~ predicting a non-planned future path of the automotive vehicle is in response to a navigation signal.

14. (Original) A method as in claim 11 further comprising adjusting the automotive vehicle speed in response to said object profile and said predicted future path profile to avoid a stopped object.

15. (Previously Presented) A method as in claim 11 further comprising signaling a warning system in response to said object profile and said predicted future path profile.

16. (Previously Presented) A control system for an automotive vehicle comprising:

a detection system detecting an object, said detection system generating a object profile;

a navigation system generating a navigation signal; and

an in-vehicle controller electrically coupled to said detection system and said navigation system, said controller in response to said object profile and said navigation signal, generating a predicted future path profile and inhibiting resume speed of the automotive vehicle by preventing acceleration of the automotive vehicle in response to said predicted future path profile and a command originated and generated by the controller.

U.S.S.N. 10/063,498

6

199-1941 (FGT 1503 PA)

17. (Previously Presented) A system as in claim 16 wherein said controller in generating a predicted future path profile determines an object location with respect to the non-planned future path.

18. (Original) A system as in claim 16 wherein said controller determines said object to be a stopped object and adjusts the speed of the automotive vehicle in relation to said stopped object.

19. (Previously Presented) A control system for an automotive vehicle comprising:

a radar system detecting an object, said radar system generating an object profile;

a navigation system generating a navigation signal;

a yaw rate sensor sensing yaw rate of the automotive vehicle, said yaw rate sensor generating a yaw rate signal; and

an in-vehicle controller electrically coupled to said radar system, said navigation system, and said yaw rate sensor, said controller in response to said object profile and said navigation signal generating a predicted future path profile and inhibiting resume speed of the automotive vehicle by preventing acceleration of the automotive vehicle in response to said predicted future path profile, said yaw rate signal, and a command originated and generated by the controller.

Claim 20 canceled.